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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,609	04/26/2001	Maurice Herlihy	0102788-00009	7659
21125	7590	08/25/2006	EXAMINER	
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			NGUYEN, HAI V	
		ART UNIT	PAPER NUMBER	
			2142	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/843,609	HERLIHY, MAURICE	
	Examiner	Art Unit	
	Hai V. Nguyen	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 June 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,3,4 and 6-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,3,4 and 6-24 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/16/06.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. This Office Action is in response to the communication received on 07 June 2006.
2. Claims 2, 5, 25-43 were cancelled.
3. Claims 1, 3-4, and 6-24 are presented for examination.

Response to Arguments

4. Applicant's arguments and amendments received on 07 June 2006 have been fully considered but they are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the following new ground(s) of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., ...wherein at least one of said requests is associated with at least one of allocation and de-allocation of dynamic memory ...wherein a said response to a said request for at least one of allocation and/or de-allocation of dynamic memory includes data memory to perform a respective one of at least said allocation and/or de-allocation of memory ...wherein the executing step uses said data for at least one of allocation and/or de-allocation of dynamic memory associated with the process in claims 1, 10, 11, 13) to the claims which significantly affected the scope thereof.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 10, 11, 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding claims 1, 10, 11, 13, the phrase "and/or" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and/or"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3-4, 13, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by **Williams** U.S. patent # **5,692,157**.

10. As to claim 1, Williams discloses substantially the invention as claimed, including a digital data computing method comprising:

utilizing a set of secured instructions and secured memory local to a client to execute, on the client, a process that makes requests (*requested_data messages*) and that requires at least asynchronous responses (*requested_data_done messages*) to those requests in order to continue operation, wherein at least one of said requests is associated with at least one of allocation and de-allocation of dynamic memory (col. 8,

line 10 - col. 9, line 19; col. 12, line 35 – col. 13, line 15; col. 15, lines 34-67; col. 16, lines 22-36);

generating, on a server, those responses external to the process and supplying them to that process, wherein a said response to a said request for at least one of allocation and/or de-allocation of dynamic memory includes data (*two parameters: the handle to the object and the requested format*) necessary to perform a respective one of at least said allocation and/or de-allocation of memory (*col. 8, line 10 - col. 9, line 19; col. 12, line 35 – col. 13, line 15; col. 15, lines 34-67; col. 16, lines 22-36*); an executing step including continuing operation of the process when at least asynchronous responses are received to the requests and otherwise discontinuing the operation of the process; there being no real-time dependency of that process on those responses, while execution of the process is continuing (*col. 8, line 10 - col. 9, line 19; col. 12, line 35 – col. 13, line 15; col. 15, lines 34-67; col. 16, lines 22-36*).

11. As to claim 3, Williams discloses performing the executing step on a server that comprises a secured coprocessor local to the client (*client application, col. 8, line 10 - col. 9, line 19; col. 12, line 35 – col. 13, line 15; col. 15, lines 34-67; col. 16, lines 22-36*).

12. As to claim 4, Williams discloses performing the executing step on a server that is remote with respect to the client (*col. 8, line 10 - col. 9, line 19; col. 12, line 35 – col. 13, line 15; col. 15, lines 34-67; col. 16, lines 22-36*).

13. Claim 13 had similar limitations of claim 1; therefore, it is rejected under the same rationale as in claim 1.

14. Claims 23-24 have similar limitations of claims 3-4; therefore, they are rejected under the same rationale as in claims 3-4.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 6-12, 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Williams** as applied to claims 1, 3-4 above, and further in view of **Shavit et al.** U.S. patent # **6,304,972 B1**.

17. As to claim 6, Williams does not explicitly disclose wherein it is computationally difficult to unauthorizedly simulate generation of the responses.

In the same field of endeavor, Shavit discloses wherein it is computationally difficult to unauthorizedly simulate generation of the responses (*Shavit, col. 4, lines 44-54; col. 17, lines 29-32*).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Shavit's teachings of using the program to render it difficult to recreate the functionality of the original program (*Shavit, col. 4, lines 44-54; col. 17, lines 29-32*) with the teachings of Williams for the purpose of preventing the unauthorized copying the software (*Shavit, col. 1, lines 51-59*).

18. As to claim 7, Williams-Shavit discloses, wherein the executing step includes executing transformed code and wherein it is computationally difficult to determine proper responses to the requests without access to at least a portion of that code prior to a transformation that produces that transformed code (*Shavit, col. 4, lines 44-54; col. 17, lines 29-32*).

19. As to claim 8, Williams-Shavit discloses performing the transformation automatically (*Shavit, col. 4, lines 44-54; col. 17, lines 29-32*).

20. As to claim 9, Williams-Shavit discloses performing the transformation manually (*Shavit, col. 4, lines 44-54; col. 17, lines 29-32*).

21. Claim 10 has similar limitations of claim 1 except for the limitation of wherein the generating step includes generating non-deterministic responses (*Shavit, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32*) to the requests *for the purpose of preventing unauthorized copying* (*Shavit, col. 1, lines 51-59*).

22. Claim 11 has similar limitations of claims 1, 7; therefore, it is rejected under the same rationale as in claims 1, 7.

23. As to claim 12, Williams-Shavit discloses securing the generation of responses against any of unauthorized use, access, copying and functional analysis, and of controlling the execution of the process (*Shavit, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32*).

24. As to claim 14, Williams-Shavit discloses, wherein the code is comprised of high level language or object code or any intermediary level set of computer instructions, or microcode (*Shavit, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32*).

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25. As to claim 15, Williams-Shavit discloses performing a transformation that includes generating any of code and data upon which the responses are based (*Shavit*, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32).

26. Claims 16-19, 21 have similar limitations of claims 8-9, 6-7, 7; therefore, they are rejected under the same rationale as in claims 8-9, 6-7, 7.

27. As to claim 20, Williams-Shavit discloses wherein generating non-deterministic responses to the requests (*Shavit*, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32).

28. As to claim 22, Williams-Shavit discloses, performing executing the code subsequent to transformation on the client (*Shavit*, col. 2, lines 30-36; col. 4, lines 44-54; col. 17, lines 29-32; *Williams*, col. 8, line 10 - col. 9, line 19).

29. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hai V. Nguyen
Examiner
Art Unit 2142

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P.E.